

CLIENT Xcel EnergyPROJECT NAME Comanche StationPROJECT NUMBER 10217175PROJECT LOCATION Pueblo, CODATE STARTED 07/30/20 12:35 COMPLETED 08/06/20 17:12WELL LOCATION 561930.73 N 2267068.12 EDRILLING CONTRACTOR Dakota DrillingGROUND ELEVATION 4825.6 ft HOLE DIAMETER 8DRILLING METHOD HSA/NX/AR

GROUND WATER LEVELS:

LOGGED BY E. Munoz

CHECKED BY _____

▼ AFTER DRILLING 37.15 ft / Elev 4788.45 ft Rising; Not Static

NOTES _____

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0							Casing Top Elev: 4827.8 (ft) Casing Type: 2-in PVC
	SS	100	7-7-8-9 (15)	ML	0.8	SILT, (ML) very dark brown (10YR 2/2), dry, soft, non plastic, some fine to medium sand	
	SS	100	6-6-7-7 (13)	CL		LEAN CLAY, SILTY, (CL) light yellowish brown (10YR 6/4), dry, soft to medium stiff, low plasticity, trace fine sand	
5	SS	100	6-10-12-10 (22)	CL	5.5		
	MC	75	3-5	CL	6.0	LEAN CLAY, SILTY, (CL) very light brown (10YR 7/4), dry, medium stiff, low plasticity, with fine to coarse sand	
					7.0	LEAN CLAY, (CL) yellowish brown (10YR 5/4), moist to dry, soft to stiff, laminated, medium plasticity, iron oxide staining, stiffness increases with depth; shale-derived clay Sample collected for moisture & permeability	
10	SS	100	12-13-15- 27 (28)	CL			
	MC	75			11.0	Sample collected for moisture & permeability	
	RC NX	25				LEAN CLAY, (CL) yellowish brown to yellow (10YR 5/4), moist, stiff, laminated, medium plasticity, iron oxide staining, shale-derived clay	
15	RC NX	70		CL			
20					20.0	SHALE, highly weathered, laminated, gray (N5), gypsiferous, damp, iron oxide staining, highly fractured, weak	
	RC NX	100			23.0	SHALE, highly weathered, laminated, gray (N5), gypsiferous, damp to wet, iron oxide staining, increasing fractures, iron staining, gypsum recrystallization with depth	
25					25.0	SHALE, slightly weathered, laminated, black (N1), damp to wet, iron oxide staining, medium-strong	
	RC NX	53			29.0	Sample collected for moisture & permeability	Bentonite Chips, Hydrated in Lifts
30	RC NX	90					
35					34.0		

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35							
	RC NX	100				SHALE, unweathered, laminated, very dark greenish gray (5GY 3/1), gypsum seams, bentonitic clay at 38 & 39', damp, unfractured (continued)	
40	RC NX	70			40.0	SHALE, unweathered, laminated, gray (N5), gypsum seams, bentonitic clay at 51', damp, unfractured	
45	RC NX	100			45.0	SHALE, unweathered, laminated, gray to black (N1), dry, unfractured	
50	RC NX	100					
55	RC NX	100					
60	RC NX	100					
65	RC NX	100			65.0	Sample collected for moisture & permeability	10-20 Silica Sand 0.010-in Slotted Screen
70	RC NX	100					
75					75.0		

Bottom of borehole at 75.0 feet.